

Data Acquisition Course
Aviation Surface Program Review Exercises

1. What entity within the National Weather Service funds and establishes Aviation Paid (A-Paid) observing stations?
- A. Meteorologist-in-Charge within the county warning area of the A-Paid station.
 - B. Regional Headquarters
 - C. Weather Service Headquarters, Observing Services Division
 - D. Weather Service Headquarters, Aviation Branch

(Correct answer (B), WSOM Chapter B-10 (Issue Date 12-22-00), Page 2, Paragraph 2.1.3)

2. The minimum standards for accuracy and resolution of sensors used by National Weather Service staffed or managed aviation programs are established by _____.
- A. NWS Observing Handbook No.7
 - B. FAA Order 7900.5
 - C. Federal Meteorological Handbook No. 1
 - D. Federal Standard for Siting Meteorological Sensors at Airports

(Correct answer (C), WSOM Chapter B-11 (Issue Date 12-22-00), Page 3, Paragraph 2.1)

3. Who is responsible for preparing and keeping visibility charts current?
- A. Supervising official at the observing station.
 - B. NWS personnel performing station inspections.
 - C. Regional headquarters data acquisition personnel.
 - D. Supervising Weather Forecast Office.

(Correct answer (A), WSOM Chapter B-11 (Issue Date 12-22-00), Page 5, Paragraph 4.)

4. The responsibility for managing and funding the relocation of observing systems or sensors rests with the agency requiring the move.
- A. True
 - B. False

(Correct answer (A), WSOM Chapter B-11 (Issue Date 12-22-00), Page A-3, Paragraph 3.)

5. Ceiling balloons are required for use only at what type of aviation observing station?
- A. ASOS
 - B. AWOS
 - C. NF-OBS
 - D. SAWRS

(Correct answer (D), WSOM Chapter B-11 (Issue Date 12-22-00), Page A-3, Paragraph 5.b.)

6. Procurement of ceiling lights and balloons for SAWRS is the responsibility of the _____.
- A. SAWRS
 - B. Weather Forecast Office
 - C. FAA
 - D. NWS Regional Headquarters

(Correct answer (A), WSOM Chapter B-11 (Issue Date 12-22-00), Page A-4, Paragraph 5.d.)

7. Aircraft altimeters are authorized for use at only what type of observing station?
- A. A-Paid
 - B. SAWRS
 - C. NF-OBS
 - D. LAWRS

(Correct answer (B), WSOM Chapter B-11 (Issue Date 12-22-00), Page A-5, Paragraph 6.d.)

8. Precision aneroid barometers and altimeter setting indicators can be used in what type of manual observing program?
- A. A-Paid
 - B. NF-Obs
 - C. SAWRS
 - D. All of the above

(Correct answer (D), WSOM Chapter B-11 (Issue Date 12-22-00), Page A-5, Paragraph 6.e.)

9. The verification of the PDB and traveling standard shall be conducted at least once every 6 months. The PDB and traveling standard shall be placed within how many feet of each other in the vertical and within how many feet in the horizontal during verification?
- A. 3 feet in the vertical and 3 feet in the horizontal
 - B. 1 foot in the vertical and 1 foot in the horizontal
 - C. 1 foot in the vertical and 3 feet in the horizontal
 - D. 3 feet in the vertical and 1 foot in the horizontal

(Correct answer (C), WSOM Chapter B-11 (Issue Date 12-22-00), Page F-1, Paragraph 1.b.)

10. Is a correction applied to the PDB when used as the operational backup to ASOS?
- A. Yes
 - B. No

(Correct answer (B), WSOM Chapter B-11 (Issue Date 12-22-00), Page F-3, Paragraph 3.)

11. What NWS form is used to document an agreement with a SAWRS cooperator?
- A. NWS Form B-14
 - B. NWS Form B-11
 - C. NWS Form A-01
 - D. NWS Form B-12

(Correct answer (D), WSOM Chapter B-14 (Issue Date 01-05-01), Page 2, Paragraph 3.)

12. How often should a SAWRS be inspected?
- A. once annually
 - B. twice a year
 - C. each quarter
 - D. none of the above

(Correct answer (B), WSOM Chapter B-14 (Issue Date 01-05-01), Page 3, Paragraph 4.9)

13. Which of the following is not a true statement?
- A. The BSAWRS observer provides backup and/or augmentation to an AWOS.
 - B. The SAWRS-II observer provides backup to an ASOS.
 - C. The SAWRS observer is the source of the official observation.
 - D. None of the above are true statements.

(Correct answer (D), WSOM Chapter B-14 (Issue Date 01-05-01), Page A-1, Paragraphs 1., 2., and 3.)

14. Who is responsible for approving or denying applications to establish supplementary aviation weather reporting stations?

- A. National Weather Service Headquarters
- B. Weather Forecast Office
- C. Regional Headquarters
- D. Federal Aviation Administration

(Correct answer (C), WSOM Chapter B-14 (Issue Date 01-05-01), Page B-1, Paragraph 2.a.)

15. A SAWRS is responsible for which of the following?

- A. Provide space to properly site and operate equipment.
- B. Provide observations to company aircraft and when required to a designated NWS or FAA facility.
- C. Install, operate, relocate if necessary, all manual or backup observing equipment.
- D. SAWRS is responsible for all of the above.

(Correct answer (D), WSOM Chapter B-14 (Issue Date 01-05-01), Page B-2, Paragraph 4.a, 4.b., and 4.c.)

16. When scheduled operations are conducted for SAWRS, observations should be reported prior to scheduled arrival. How much time prior to arrival should observations begin?

- A. 1 hour
- B. 30 minutes
- C. 15 minutes
- D. 15 minutes prior to final approach

(Correct answer (A), WSOM Chapter B-14 (Issue Date 01-05-01), Page C-1, Paragraph 2.a.(2)).

17. What additional element is required to be reported in a METAR observation by a SAWRS if a TAF is prepared for the location?

- A. Dew point temperature
- B. Sea Level Pressure
- C. Sky condition above 12,000 feet
- D. No additional element in a METAR observation is required

(Correct answer (A), WSOM Chapter B-14 (Issue Date 01-05-01), Page C-2, Paragraph 2.d.)

18. The NWS will provide each SAWRS with two copies of WSOH #8 and one copy of the NWS Training Guide for Surface Observations.

- A. True
- B. False

(Correct answer (A), WSOM B-14 (Issue Date 01-05-01), Page C-2, Paragraph 3.)

19. The BSAWRS cooperator must agree to which of the following.

- A. Operator terminal is available to the observers.
- B. Observers have received operator training for overriding and restoring the automated system.
- C. Hours of backup agree with the time of observations.
- D. All of the above.

(Correct answer (D), WSOM B-14 (Issue Date 01-05-01), Page D-1, Paragraph 2.a.(1), (2), and (3))

20. BSAWRS quality control responsibility for the AWOS equipment belongs to the _____.

- A. FAA
- B. AWOS owner
- C. manufacturer
- D. All of the above

(Correct answer (D), WSOM B-14 (Issue Date 01-05-01), Page D-2, Paragraph 2.c.)

21. The SAWRS-II cooperator shall not have access to an ASOS operator interface device and shall not edit ASOS observations.

- A. True
- B. False

(Correct answer (A), WSOM B-14 (Issue Date 01-05-01), Page E-1, Paragraph 2.a.)

22. If the ASOS appears to be disabled or malfunctioning, the SAWRS-II shall notify the _____.

- A. local FAA office
- B. supervising NWS office
- C. AOMC
- D. airport manager

(Correct answer (B), WSOM B-14 (Issue Date 01-05-01), Page E-1, Paragraph 2.b.(1))

23. SAWRS using Government owned facilities and equipment shall be responsible and accountable for the damage or loss of property while the facility is occupied by the cooperator. Failure to comply with these provisions shall result in the _____.
- A. Government action to recover for any damages or losses.
 - B. immediate loss of authorization to use the Government facility.
 - C. immediate cancellation of observer certificates.
 - D. Both A and B.

(Correct answer (D), WSOM B-14 (Issue Date 01-15-01), Page G-1)

24. Certification is the means employed by the NWS to officially sanction the aviation observations used in the support of aviation operations.
- A. True
 - B. False

(Correct answer (A), WSOM B-61 (Issue Date 10-4-00), Page 3, Paragraph 1.)

25. Individuals who validate officially sanctioned aviation observations are not required to possess a valid Certificate of Authority.
- A. True
 - B. False

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page 3, Paragraph 2.)

26. An individual must meet specific qualifications to become certified in aviation observations. Which of the following is a qualification factor?
- A. vision standard
 - B. demonstrate skills proficiency
 - C. attain passing score on a certification examination
 - D. all of the above are qualifications

(Correct answer (D), WSOM B-61 (Issue Date 10-4-00), Page 4, Paragraph 5.)

27. Should the certification examination be administered before or after the demonstration of skills proficiency?
- A. Before
 - B. After

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page 4, Paragraph 5.3)

28. A passing grade of 80 percent is required for the aviation examination. If an individual fails the examination, what is the minimum time required before another examination is administered?
- A. one week
 - B. two weeks
 - C. three weeks
 - D. four weeks

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page 4, Paragraph 5.3 and Page A-15, Paragraph 10.)

29. An observer with a lapsed certificate cannot take official weather observations. After how many days will the certificate be canceled?
- A. 45 days
 - B. 60 days
 - C. 90 days
 - D. 120 days

(Correct answer (C), WSOM B-61 (Issue Date 10-4-00), Page 5, Paragraph 7.)

30. Who is exempt from the “recency of experience” in taking aviation observations?
- A. FAA training personnel
 - B. individuals developing the certification examinations
 - C. those responsible for developing observing handbooks
 - D. all of the above

(Correct answer (D), WSOM B-61 (Issue Date 10-4-00), Page 5, Paragraph 8.a. and 8.c.)

31. What is the only training material available within the NWS for aviation observations?
- A. FAA Computer Based Instruction (CBI)
 - B. Training Guide in Surface Weather Observations
 - C. FAA Order 7900.5
 - D. FAA FTE-2

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page A-3, Paragraph 2.2)

32. Examinations may be given to contract personnel for them to administer.

- A. True
- B. False

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page A-4, Paragraph 2.4)

33. What is the time limit for all examinations?

- A. 2 hours
- B. 3 hours
- C. 4 hours
- D. no time limit

(Correct answer (A), WSOM B-61 (Issue Date 10-4-00), Page A-6, Paragraph 5.2)

34. All requests for aviation certification examinations must include the following except for _____.

- A. the date the candidate is scheduled to take the examination.
- B. the site identifier where the candidate is scheduled to take observations.
- C. the Social Security Number.
- D. the station name where the candidate will take the examination.

(Correct answer (C), WSOM B-61 (Issue Date 10-4-00), Page A-7, Paragraph 7.a. thru 7.g.)

35. Must the person who proctors an examination be certified?

- A. Yes
- B. No

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page A-8, Paragraph 8.1)

36. Should the proctor of an aviation examination sign the answer sheet if the examinee failed?

- A. Yes
- B. No

(Correct answer (A), WSOM B-61 (Issue Date 10-4-00), Page A-9, Exhibit A-2., and 8.2.3)

37. Paper examinations sent to an FAA facility must be administered within how many days of receipt?
- A. 3 days
 - B. 5 days
 - C. 10 days
 - D. 14 days

(Correct answer (C), WSOM B-61 (Issue Date 10-4-00), Page A-11, Paragraph 8.2.4)

38. How long should the "Examination Custodian Statement" be retained?
- A. 3 months
 - B. 6 months
 - C. 1 year
 - D. 3 years

(Correct answer (C), WSOM B-61 (Issue Date 10-4-00), Page A-13, Paragraph 8.2.7)

39. When grading examinations, what color should be used in marking incorrect answers?
- A. Red
 - B. Black
 - C. Blue
 - D. Pencil

(Correct answer (A), WSOM B-61 (Issue Date 10-4-00), Page A-15, Paragraph 9.b.)

40. Canceled certificates should be returned to the _____.
- A. FAA Regional Headquarters.
 - B. NWS National Headquarters.
 - C. NWS Regional Headquarters.
 - D. supervising NWS Forecast Office.

(Correct answer (C), WSOM B-61 (Issue Date 10-4-00), Page A-16, Paragraph 13.)

41. Who may ask an observer to demonstrate proficiency?
- A. NWS or FAA inspectors
 - B. contract supervisors
 - C. facility manager
 - D. all of the above

(Correct answer (D), WSOM B-61 (Issue Date 10-4-00), Page A-19, Paragraph 14.a., b., and c.)

42. To maintain proficiency, NWS, FAA, and LAWRS observers must take how many observations and within how many days?

- A. five observations in 60 days
- B. one observation in 60 days
- C. five observations each month
- D. one observation each month

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page A-19, Paragraph 15.a.)

43. SAWRS observers must take how many official or practice observations and within what period of time to maintain proficiency?

- A. five observations each month
- B. five observations in 60 days
- C. one observation each month
- D. one observation in 60 days

(Correct answer (A), WSOM B-61 (Issue Date 10-4-00), Page A-19, Paragraph 15.c.)

44. Which of the following is a reason for a lapsed certificate?

- A. failure to revalidate the certificate upon transfer
- B. failure to maintain recency of experience
- C. poor observer performance
- D. all are reasons for a lapsed certificate

(Correct answer (D), WSOM B-61 (Issue Date 10-4-00), Page A-22, Paragraph 17.1)

45. Upon transfer to a new duty station, an employees certificate will lapse after how many days unless the certificated is validated?

- A. 30 days
- B. 45 days
- C. 60 days
- D. 90 days

(Correct answer (B), WSOM B-61 (Issue Date 10-4-00), Page A-24, Paragraph 18.3)

46. Station inspection visits of surface observing sites should be performed how often except for SAWRS?
- A. once each year
 - B. twice a year
 - C. once every two years
 - D. none of the above

(Correct answer (A), WSOM B-66 (Issue Date 11-17-98), Page 6, Paragraph 4.1)

47. Use of what NWS form is mandatory in conducting a station inspection?
- A. NWS Form B-11
 - B. NWS Form B-12
 - C. NWS Form B-32
 - D. NWS Form B-47

(Correct answer (C), WSOM B-66 (Issue Date 11-17-98), Page 6, Paragraph 4.2)

48. Visibility charts should be checked for currency. Does the inspector initial the charts if they appear accurate?
- A. Yes
 - B. No

(Correct answer (A), WSOM B-66 (Issue Date 11-17-98), Page 8, Paragraph 4.2b.(8))

49. Upon completion of an inspection, the inspector should discuss what aspects of the station inspection with the station manager?
- A. strengths
 - B. discrepancies
 - C. both A and B
 - D. not necessary to verbally discuss the inspection with the station manager

(Correct answer (C), WSOM B-66 (Issue Date 11-17-98), Page 9, Paragraph 4.3)

50. Upon completion of each station inspection, the inspector is required to provide a written narrative report. What NWS form is used for this narrative report?
- A. NWS Form B-12
 - B. NWS Form B-32
 - C. NWS Form B-33
 - D. NWS Form B-38

(Correct answer (C), WSOM B-66 (Issue Date 11-17-98), Page 9, Paragraph 5.1)

51. All follow-up action items from a station inspection for an NWS site should be accomplished as promptly as possible. If the action item is not completed within 30 days after the visit, what is the station required to do?
- A. prepare for another inspection
 - B. submit a progress report
 - C. call the SOD chief and request a 30 day extension for completion
 - D. call the SOD chief and request a 14 day extension for completion

(Correct answer (B), WSOM B-66 (Issue Date 11-17-98), Page 10, Paragraph 5.2.1)

52. If a station is rated unsatisfactory, who should be notified?
- A. appropriate regional observing program manager
 - B. Observing Services Division
 - C. Office of Climate, Water, and Weather Services
 - D. regional SOD chief

(Correct answer (A), WSOM B-66 (Issue Date 11-17-98), Page 11, Paragraph 5.2.4)

53. Inspection reports should be retained at the Regional Headquarters for what length of time?
- A. 1 year
 - B. 2 years
 - C. 3 years
 - D. 3 years or until superseded

(Correct answer (D), WSOM B-66 (Issue Date 11-17-98), Page 12, Paragraph 5.3a. and b.)

54. On an occasional basis, unannounced inspections may be conducted. These unannounced or surprise inspections are useful for what type of observing location?
- A. NWS contract sites
 - B. FAA contract sites
 - C. SAWRS
 - D. both A and B

(Correct answer (D), WSOM B-66 (Issue Date 11-17-98), Page 12, Paragraph 6.1)

55. The term Service Standards refers to four levels of detail in weather observations at sites where there is a commissioned ASOS. What service level is completely automated with no augmentation?
- A. Service Level A
 - B. Service Level B
 - C. Service Level C
 - D. Service Level D

(Correct answer (D), FAA Order 7900.5B, Page D-1)

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